

Claims

1. A method for diagnosing colon cancer in a subject comprising:
obtaining a biological sample from a subject,
5 contacting the sample with at least two different colon cancer-associated polypeptides encoded by nucleic acid molecules comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15, and
determining specific binding between the colon cancer-associated polypeptides and
agents in the sample, wherein the presence of specific binding is diagnostic for colon cancer
10 in the subject.
2. The method of claim 1, wherein the sample is blood.
3. The method of claim 1, wherein the biological sample is contacted with at least 3, 4,
15 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, or 15 different colon cancer-associated polypeptides encoded by nucleic acid molecules comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15.
4. The method of claim 1, wherein the agents are antibodies or antigen-binding
20 fragments thereof.
5. The method of claim 1, further comprising:
contacting the biological sample with a colon cancer-associated polypeptide other
than those encoded by nucleic acid molecules comprising a nucleotide sequence selected
25 from the group consisting of SEQ ID NOs:1-15.
6. A method for diagnosing colon cancer in a subject comprising:
obtaining a biological sample from a subject,
contacting the sample with antibodies or antigen-binding fragments thereof, that bind
30 specifically to at least two different colon cancer-associated polypeptides encoded by nucleic acid molecules comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15, and

determining specific binding between the antibodies or antigen-binding fragments thereof and colon cancer-associated polypeptides in the sample, wherein the presence of specific binding is diagnostic for colon cancer in the subject.

- 5 7. The method of claim 6, wherein the sample is selected from the group consisting of tissue, stool, cells, blood, and mucus.
8. The sample of claim 7, wherein the tissue is colorectal tissue.
- 10 9. The method of claim 6, wherein the biological sample is contacted with antibodies or antigen-binding fragments thereof, that bind specifically to at least 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, or 15 different colon cancer-associated polypeptides encoded by nucleic acid molecules comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15.
- 15 10. The method of claim 6, further comprising:
contacting the biological sample with an antibody or antigen-binding fragment thereof, that binds specifically to a colon cancer-associated polypeptide other than those encoded by nucleic acid molecules comprising a nucleotide sequence selected from the group
20 consisting of SEQ ID NOs:1-15.
11. The method of claim 6, wherein the antibodies are monoclonal or polyclonal antibodies.
- 25 12. The method of claim 6, wherein the antibodies are chimeric, human, or humanized antibodies.
13. The method of claim 6, wherein the antibodies are single chain antibodies.
- 30 14. The method of claim 6, wherein the antigen-binding fragments are F(ab')₂, Fab, Fd, or Fv fragments.

15. A method for determining onset, progression, or regression, of colon cancer in a subject, comprising:

obtaining from a subject a first biological sample,

contacting the first sample with at least two different colon cancer-associated

5 polypeptides encoded by nucleic acid molecules comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15,

determining specific binding between agents in the first sample and the at least two different colon cancer-associated polypeptides,

obtaining from a subject a second biological sample,

10 contacting the second biological sample with at least two different colon cancer-associated polypeptides encoded by nucleic acid molecules comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15,

determining specific binding between agents in the second sample and the at least two different colon cancer-associated polypeptides, and

15 comparing the determination of binding in the first sample to the determination of specific binding in the second sample as a determination of the onset, progression, or regression of the colon cancer.

16. The method of claim 15, wherein the sample is a blood sample.

20 17. The method of claim 15, wherein binding is determined between the agents and at least 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, or 15 different colon cancer-associated polypeptides encoded by nucleic acid molecules comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15.

25 18. The method of claim 15, wherein the agents are antibodies or antigen-binding fragments thereof.

19. The method of claim 15, further comprising:

30 determining binding between the agents and a colon cancer-associated polypeptide other than those encoded by a nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15.

20. A method for determining onset, progression, or regression, of colon cancer in a subject, comprising:

obtaining from a subject a first biological sample,

contacting the first sample with antibodies or antigen-binding fragments thereof, that

5 bind specifically to at least two different colon cancer-associated polypeptides encoded by nucleic acid molecules comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15,

determining specific binding between colon cancer-associated polypeptides in the first sample and the antibodies or antigen-binding fragments thereof,

10 obtaining from a subject a second biological sample,

contacting the second sample with antibodies or antigen-binding fragments thereof, that bind specifically to at least two different colon cancer-associated polypeptides encoded by nucleic acid molecules comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15,

15 determining specific binding between colon cancer-associated polypeptides in the second sample and the antibodies or antigen-binding fragments thereof, and

comparing the determination of specific binding in the first sample to the determination of specific binding in the second sample as a determination of the onset, progression, or regression of colon cancer.

20 21. The method of claim 20, wherein the sample is selected from the group consisting of: tissue, stool, cells, blood, and mucus.

22. The sample of claim 21, wherein the tissue is colorectal tissue.

25 23. The method of claim 20, wherein binding is determined between the colon cancer-associated polypeptides and antibodies or antigen-binding fragments thereof, that bind specifically to least 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, or 15 different colon cancer-associated polypeptides encoded by nucleic acid molecules comprising a nucleotide sequence
30 selected from the group consisting of SEQ ID NOs:1-15.

24. The method of claim 20, further comprising:

determining binding between the colon cancer-associated polypeptide and an antibody or antigen-binding fragment thereof, that binds specifically to a colon cancer-associated polypeptide other than those encoded by nucleic acid molecules comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15.

25. The method of claim 20, wherein the antibodies are monoclonal or polyclonal antibodies.

26. The method of claim 20, wherein the antibodies are chimeric, human, or humanized antibodies.

27. The method of claim 20, wherein the antibodies are single chain antibodies.

28. The method of claim 20, wherein the antigen-binding fragments are F(ab')₂, Fab, Fd, or Fv fragments.

29. A method for selecting a course of treatment of a subject having or suspected of having colon cancer, comprising:
obtaining from the subject a biological sample,
contacting the sample with at least two different colon cancer-associated polypeptides encoded by nucleic acid molecules comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15,

determining specific binding between agents in the sample that are differentially expressed in different types of cancer, and the colon cancer-associated polypeptides, and selecting a course of treatment appropriate to the cancer of the subject.

30. The method of claim 29, wherein the treatment is administering antibodies that specifically bind to the colon cancer-associated polypeptides.

31. The method of claim 30, wherein the antibodies are labeled with one or more cytotoxic agents.

32. The method of claim 29, wherein the sample is a blood sample.

33. The method of claim 29, wherein the agents are antibodies or antigen-binding fragments thereof.

5 34. The method of claim 29, wherein the sample is contacted with at least 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, or 15 different colon cancer-associated polypeptides encoded by nucleic acid molecules comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15.

10 35. The method of claim 29, further comprising:
contacting the sample with a colon cancer-associated polypeptide other than those encoded by a nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15.

15 36. A method for selecting a course of treatment of a subject having or suspected of having colon cancer, comprising:
obtaining from the subject a biological sample,
contacting the sample with antibodies or antigen-binding fragments thereof that bind specifically to at least two different colon cancer-associated polypeptides encoded by nucleic
20 acid molecules comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15,

determining specific binding between colon cancer-associated polypeptides in the sample that are differentially expressed in different types of cancer, and the antibodies or antigen-binding fragments thereof, and
25 selecting a course of treatment appropriate to the cancer of the subject.

37. The method of claim 36, wherein the treatment is administering antibodies that specifically bind to the colon cancer-associated polypeptides.

30 38. The method of claim 37, wherein the antibodies are labeled with one or more cytotoxic agents.

39. The method of claim 36, wherein the sample is selected from the group consisting of: tissue, stool, cells, blood, and mucus.

40. The sample of claim 39, wherein the tissue is colorectal tissue.

41. The method of claim 36, wherein the sample is contacted with antibodies or antigen-binding fragments thereof, that bind specifically to least 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, or 15 different colon cancer-associated polypeptides encoded by nucleic acid molecules comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15.

42. The method of claim 36, further comprising:
contacting the sample with an antibody or antigen-binding fragment thereof, that binds specifically to a colon cancer-associated polypeptide other than those encoded by a nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15.

43. The method of claim 37, wherein the antibodies are monoclonal or polyclonal antibodies.

44. The method of claim 37, wherein the antibodies are chimeric, human, or humanized antibodies.

45. The method of claim 37, wherein the antibodies are single chain antibodies.

46. The method of claim 37, wherein the antigen-binding fragments are F(ab')₂, Fab, Fd, or Fv fragments.

47. A kit for the diagnosis of colon cancer in a subject, comprising:
at least two different colon cancer-associated polypeptides encoded by nucleic acid molecules comprising a nucleotide sequence selected from the group consisting of: SEQ ID NOs: 1-15, one or more control antigens, and instructions for the use of the polypeptides in the diagnosis of colon cancer.

48. The kit of claim 47, wherein the colon cancer-associated polypeptides are bound to a substrate.

49. The kit of claim 47, wherein the kit comprises at least 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, or 15 different colon cancer-associated polypeptides encoded by nucleic acid molecules comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15.

50. The kit of claim 47, wherein the kit further comprises a colon cancer-associated polypeptide other than those encoded by a nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15.

51. A kit for the diagnosis of colon cancer in a subject, comprising:
antibodies or antigen-binding fragments thereof that bind specifically to at least two different colon cancer-associated polypeptides encoded by nucleic acid molecules comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15, one or more control agents, and instructions for the use of the agents in the diagnosis of colon cancer.

52. The kit of claim 51, wherein the one or more agents are antibodies or antigen-binding fragments thereof.

53. The kit of claim 51, wherein the one or more agents are bound to a substrate.

54. The kit of claim 51, wherein the kit comprises antibodies or antigen-binding fragments thereof, that bind specifically to least 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, or 15 different colon cancer-associated polypeptides encoded by nucleic acid molecules comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15.

55. The kit of claim 51, wherein the kit further comprises an antibody or antigen-binding fragment thereof, that binds specifically to a colon cancer-associated polypeptide other than those encoded by a nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15.

56. A protein microarray comprising at least two different colon cancer-associated polypeptides, wherein the colon cancer-associated polypeptides are encoded by nucleic acid molecules comprising a nucleotide sequence selected from the group consisting of: SEQ ID NOs: 1-15, fixed to a solid substrate.

57. The protein microarray of claim 56, wherein the microarray comprises at least 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, or 15 different colon cancer-associated polypeptides encoded by nucleic acid molecules comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs: 1-15.

58. The protein microarray of claim 56, further comprising a colon cancer-associated polypeptide other than those encoded by a nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs: 1-15.

59. The protein microarray of claim 56, further comprising at least one control polypeptide molecule.

60. A protein microarray comprising antibodies or antigen-binding fragments thereof, that specifically bind at least two different colon cancer-associated polypeptides encoded by nucleic acid molecules comprising a nucleotide sequence selected from the group consisting of: SEQ ID NOs: 1-15, fixed to a solid substrate.

61. The protein microarray of claim 60, wherein the microarray comprises antibodies or antigen-binding fragments thereof, that bind specifically to least 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, or 15 different colon cancer-associated polypeptides encoded by nucleic acid molecules comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs: 1-15.

62. The protein microarray of claim 60, further comprising an antibody or antigen-binding fragment thereof, that binds specifically to a colon cancer-associated polypeptide other than those encoded by a nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs: 1-15.

63. The protein microarray of claim 60, further comprising at least one control polypeptide molecule.

64. The protein microarray of claim 60, wherein the antibodies are monoclonal or polyclonal antibodies.

65. The protein microarray of claim 60, wherein the antibodies are chimeric, human, or humanized antibodies.

66. The protein microarray of claim 60, wherein the antibodies are single chain antibodies.

67. The protein microarray of claim 60, wherein the antigen-binding fragments are F(ab')₂, Fab, Fd, or Fv fragments.

68. A nucleic acid microarray comprising at least two nucleic acids selected from the group consisting of SEQ ID NOs: 1-15, fixed to a solid substrate.

69. The nucleic acid microarray of claim 68, wherein the microarray comprises at least 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, or 15 different nucleic acid molecules comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15.

70. The nucleic acid microarray of claim 68, further comprising a nucleic acid molecule other than those selected from the group consisting of SEQ ID NOs:1-15.

71. The nucleic acid microarray of claim 68, further comprising at least one control nucleic acid molecule.

72. A method for diagnosing colon cancer in a subject comprising:
obtaining from the subject a biological sample, and
determining the expression of at least two colon cancer-associated nucleic acid molecules or expression products thereof in the sample, wherein the nucleic acid molecules

comprise a nucleotide sequence selected from the group consisting of: SEQ ID NO: 1-15, wherein the expression is diagnosis of the colon cancer in the subject.

73. The method of claim 72, wherein expression is determined for at least 3, 4, 5, 6, 7, 8,
5 9, 10, 11, 12, 13, 14, or 15 nucleic acid molecules comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15.

74. The method of claim 72, further comprising:
determining expression of a colon cancer-associated nucleic acid molecule other than
10 those comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15.

75. The method of claim 72, wherein the sample is selected from the group consisting of:
tissue, stool, cells, blood, and mucus.

76. The sample of claim 75, wherein the tissue is colorectal tissue.

77. The method of claim 72, wherein the expression of colon cancer-associated nucleic
acid molecules is determined by a method selected from the group consisting of nucleic acid
20 hybridization and nucleic acid amplification.

78. The method of claim 77, wherein the hybridization is performed using a nucleic acid
microarray.

25 79. A method for determining onset, progression, or regression, of colon cancer in a
subject comprising:
obtaining from a subject a first biological sample,
determining a level of expression of at least two colon cancer-associated nucleic acid
molecules or expression products thereof in the first sample, wherein the nucleic acid
30 molecules are selected from the group consisting of: SEQ ID NOs: 1-15,
obtaining from the subject a second biological sample,

determining a level of expression of at least two colon cancer-associated nucleic acid molecules or expression products thereof in the second sample, wherein the nucleic acid molecules are selected from the group consisting of: SEQ ID NOs: 1-15, and

comparing the level of expression in the first sample to the level of expression in the second sample as a determination of the onset, progression, or regression of the colon cancer.

80. The method of claim 79, wherein expression is determined for at least 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, or 15 nucleic acid molecules selected from the group consisting of SEQ ID NOs:1-15.

81. The method of claim 79, further comprising:
determining expression for a colon cancer-associated nucleic acid molecule other than those comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-15.

82. The method of claim 79, wherein the sample is selected from the group consisting of: tissue, stool, cells, blood, and mucus.

83. The sample of claim 82, wherein the tissue is colorectal tissue.

84. The method of claim 79, wherein the expression of colon cancer-associated nucleic acid molecules is determined by a method selected from the group consisting of nucleic acid hybridization and nucleic acid amplification.

85. The method of claim 84, wherein the hybridization is performed using a nucleic acid microarray.

86. A method for diagnosing cancer in a subject comprising:
obtaining a biological sample from a subject,
contacting the sample with a colon cancer-associated polypeptide encoded by a nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1, 2, 5, and 6, and

determining specific binding between the colon cancer-associated polypeptide and agents in the sample, wherein the presence of specific binding is diagnostic for cancer in the subject.

5 87. The method of claim 86, wherein the sample is blood.

88. The method of claim 86, wherein the agents are antibodies or antigen-binding fragments thereof.

10 89. The method of claim 86, wherein the cancer is colon cancer.

90. A method for diagnosing cancer in a subject comprising:

obtaining a biological sample from a subject,

contacting the sample with an antibody or antigen-binding fragment thereof, that

15 binds specifically to a colon cancer-associated polypeptide encoded by a nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1, 2, 5, and 6, and

determining specific binding between the antibody or antigen-binding fragment thereof and the colon cancer-associated polypeptide in the sample, wherein the presence of
20 specific binding is diagnostic for cancer in the subject.

91. The method of claim 90, wherein the sample is selected from the group consisting of: tissue, stool, cells, blood, and mucus.

25 92. The sample of claim 91, wherein the tissue is colorectal tissue.

93. The method of claim 90, wherein the antibodies are monoclonal or polyclonal antibodies.

30 94. The method of claim 90, wherein the antibodies are chimeric, human, or humanized antibodies.

95. The method of claim 90, wherein the antibodies are single chain antibodies.

96. The method of claim 90, wherein the antigen-binding fragments are F(ab')₂, Fab, Fd, or Fv fragments.

97. The method of claim 90, wherein the cancer is colon cancer.

98. A method for determining onset, progression, or regression, of cancer in a subject, comprising:

obtaining from a subject a first biological sample,

contacting the first sample with a colon cancer associated polypeptide encoded by a nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1, 2, 5, and 6,

determining specific binding between agents in the first sample and the colon cancer-associated,

obtaining from a subject a second biological sample,

contacting the second sample with a colon cancer associated polypeptide encoded by a nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1, 2, 5, and 6,

determining specific binding between agents in the second sample and the colon cancer-associated polypeptide, and

comparing the determination of binding in the first sample to the determination of specific binding in the second sample as a determination of the onset, progression, or regression of cancer.

99. The method of claim 98, wherein the sample is a blood sample.

100. The method of claim 98, wherein the agents are antibodies or antigen-binding fragments thereof.

101. The method of claim 98, wherein the cancer is colon cancer.

102. A method for determining onset, progression, or regression, of cancer in a subject, comprising:

obtaining from a subject a first biological sample,

contacting the first sample with antibodies or antigen-binding fragments thereof, that bind specifically to a colon cancer-associated polypeptides encoded by a nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of SEQ ID

5 NOs:1, 2, 5, and 6,

determining specific binding between colon cancer-associated polypeptides in the first sample and the antibodies or antigen-fragments thereof,

obtaining from a subject a second biological sample,

contacting the second sample with antibodies or antigen-binding fragments thereof, that bind specifically to a colon cancer-associated polypeptides encoded by a nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of SEQ ID

10 NOs:1, 2, 5, and 6,

determining specific binding between colon cancer-associated polypeptides in the second sample and the antibodies or antigen-binding fragments thereof, and

15 comparing the determination of specific binding in the first sample to the determination of specific binding in the second sample as a determination of the onset, progression, or regression of cancer.

103. The method of claim 102, wherein the sample is selected from the group consisting of: tissue, stool, cells, blood, and mucus.

104. The sample of claim 103, wherein the tissue is colorectal tissue.

105. The method of claim 102, wherein the antibodies are monoclonal or polyclonal

106. The method of claim 102, wherein the antibodies are chimeric, human, or humanized antibodies.

107. The method of claim 102, wherein the antibodies are single chain antibodies.

108. The method of claim 102, wherein the antigen-binding fragments are F(ab')₂, Fab, Fd, or Fv fragments.

109. The method of claim 102, wherein the cancer is colon cancer.

110. A method for selecting a course of treatment of a subject having or suspected of
5 having cancer, comprising:

obtaining from the subject a biological sample,

contacting the sample with a colon cancer-associated polypeptide encoded by a
nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of
SEQ ID NOs:1, 2, 5, and 6,

10 determining specific binding between agents in the sample that are differentially
expressed in different types of cancer, and the colon cancer-associated polypeptide, and
selecting a course of treatment appropriate to the cancer of the subject.

111. The method of claim 110, wherein the treatment is administering antibodies that
15 specifically bind to the colon cancer-associated polypeptide.

112. The method of claim 111, wherein the antibodies are labeled with one or more
cytotoxic agents.

20 113. The method of claim 110, wherein the sample is a blood sample.

114. The method of claim 110, wherein the agents are antibodies or antigen-binding
fragments thereof.

25 115. The method of claim 110, wherein the cancer is colon cancer.

116. A method for selecting a course of treatment of a subject having or suspected of
having cancer, comprising:

obtaining from the subject a biological sample,

30 contacting the sample with antibodies or antigen-binding fragments thereof that bind
specifically to a colon cancer-associated polypeptide encoded by a nucleic acid molecule
comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1, 2, 5,
and 6,

determining specific binding between colon cancer-associated polypeptides in the sample that are differentially expressed in different types of cancer, and the antibodies or antigen-binding fragments thereof, and

selecting a course of treatment appropriate to the cancer of the subject.

117. The method of claim 116, wherein the treatment is administering antibodies that specifically bind to the colon cancer-associated polypeptide.

118. The method of claim 117, wherein the antibodies are labeled with one or more cytotoxic agents.

119. The method of claim 116, wherein the sample is selected from the group consisting of: tissue, stool, cells, blood, and mucus.

120. The sample of claim 119, wherein the tissue is colorectal tissue.

121. The method of claim 116, wherein the antibodies are monoclonal or polyclonal antibodies.

122. The method of claim 116, wherein the antibodies are chimeric, human, or humanized antibodies.

123. The method of claim 116, wherein the antibodies are single chain antibodies.

124. The method of claim 116, wherein the antigen-binding fragments are $F(ab')_2$, Fab, Fd, or Fv fragments.

125. The method of claim 116, wherein the cancer is colon cancer.

126. A kit for the diagnosis of cancer in a subject, comprising:
a colon cancer-associated polypeptide encoded by a nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of: SEQ ID NOs: 1, 2, 5, and 6; one

or more control antigens; and instructions for the use of the polypeptide and control antigens in the diagnosis of cancer.

127. The kit of claim 126, wherein the colon cancer-associated polypeptide is bound to a substrate.

128. The kit of claim 126, wherein the cancer is colon cancer.

129. A kit for the diagnosis of cancer in a subject, comprising:

antibodies or antigen-binding fragments thereof that bind specifically to a colon cancer-associated polypeptide encoded by a nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of SEQ ID NOs:1, 2, 5, and 6; one or more control agents; and instructions for the use of the antibodies, antigen-binding fragments, and agents in the diagnosis of cancer.

130. The kit of claim 129, wherein the one or more agents are antibodies or antigen-binding fragments thereof.

131. The kit of claim 129, wherein the one or more agents are bound to a substrate.

132. The kit of claim 129, wherein the cancer is colon cancer.

133. A protein microarray comprising a colon cancer-associated polypeptide, wherein the colon cancer-associated polypeptide is encoded by a nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of: SEQ ID NOs: 1, 2, 5, and 6, fixed to a solid substrate.

134. The protein microarray of claim 133, further comprising at least one control polypeptide molecule.

135. A protein microarray comprising antibodies or antigen-binding fragments thereof, that specifically bind a colon cancer-associated polypeptide encoded by a nucleic acid molecule

comprising a nucleotide sequence selected from the group consisting of: SEQ ID NOs: 1, 2, 5, and 6, fixed to a solid substrate.

136. The protein microarray of claim 135, further comprising at least one control polypeptide molecule.

137. The protein microarray of claim 135, wherein the antibodies are monoclonal or polyclonal antibodies.

138. The protein microarray of claim 135, wherein the antibodies are chimeric, human, or humanized antibodies.

139. The protein microarray of claim 135, wherein the antibodies are single chain antibodies.

140. The protein microarray of claim 135, wherein the antigen-binding fragments are F(ab')₂, Fab, Fd, or Fv fragments.

141. A nucleic acid microarray comprising a nucleic acid selected from the group consisting of SEQ ID NOs: 1, 2, 5, and 6, fixed to a solid substrate.

142. The nucleic acid microarray of claim 141, further comprising at least one control nucleic acid molecule.

143. A method for diagnosing cancer in a subject comprising:
obtaining from the subject a biological sample, and
determining the expression of a colon cancer-associated nucleic acid molecule or expression product thereof in the sample, wherein the nucleic acid molecule comprises a nucleotide sequence selected from the group consisting of: SEQ ID NO: 1, 2, 5, and 6, wherein the expression is diagnostic of cancer in the subject.

144. The method of claim 143, wherein the sample is selected from the group consisting of: tissue, stool, cells, blood, and mucus.

145. The sample of claim 144, wherein the tissue is colorectal tissue.

146. The method of claim 143, wherein the expression of colon cancer-associated nucleic acid molecules is determined by a method selected from the group consisting of nucleic acid hybridization and nucleic acid amplification.

147. The method of claim 146, wherein the hybridization is performed using a nucleic acid microarray.

148. The method of claim 143, wherein the cancer is colon cancer.

149. A method for determining onset, progression, or regression, of cancer in a subject comprising:

obtaining from a subject a first biological sample,
determining a level of expression of a colon cancer-associated nucleic acid molecule or expression products thereof in the first sample, wherein the nucleic acid molecule is selected from the group consisting of: SEQ ID NOs: 1, 2, 5, and 6,

obtaining from the subject a second biological sample,
determining a level of expression of a colon cancer-associated nucleic acid molecule or expression product thereof in the second sample, wherein the nucleic acid molecule is selected from the group consisting of: SEQ ID NOs: 1, 2, 5, and 6, and

comparing the level of expression in the first sample to the level of expression in the second sample as a determination of the onset, progression, or regression of the cancer.

150. The method of claim 149, wherein the sample is selected from the group consisting of: tissue, stool, cells, blood, and mucus.

151. The sample of claim 150, wherein the tissue is colorectal tissue.

152. The method of claim 149, wherein the expression of colon cancer-associated nucleic acid molecules is determined by a method selected from the group consisting of nucleic acid hybridization and nucleic acid amplification.

153. The method of claim 152, wherein the hybridization is performed using a nucleic acid microarray.

5 154. The method of claim 149, wherein the cancer is colon cancer.

